From: Emma Thompson <emma.thompson.consultant@springernature.com>
To: "Letko, Michael Colin" <michael.letko@wsu.edu>
Sent: 2/17/2020 8:35:08 AM
Subject: RE: An invitation from the Nature Research Microbiology Community - NMICROBIOL-20020307A

Hi Michael,

It will be weeks until the manuscript publication date. (A few weeks, to several - depending on the production schedule. I'm afraid I can't be more specific as I don't have access to the overall schedule.)

And thank you for clarifying the details of names!

Emma

From: Letko, Michael Colin <michael.letko@wsu.edu>
Sent: 17 February 2020 16:26
To: Emma Thompson <emma.thompson.consultant@springernature.com>
Subject: Re: An invitation from the Nature Research Microbiology Community - NMICROBIOL-20020307A

Perfect. I will start working on this.

So that I can plan better, do you know when we should expect to hear back from the editors on our manuscript and type set proofs? In other words, do I have a week to complete this post or a few days, etc?

Thank you,
-michael

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Allen Center
Washington State University

Pullman, WA 99164

On Feb 17, 2020, at 9:19 AM, Emma Thompson <emma.thompson.consultant@springernature.com> wrote:

Dear Michael,

Great news – thank you for your interest in contributing to the community!

Firstly, you will need to join the community, here. When you are ready to create your post, click on 'Contribute' when logged in and select 'Create a Post'. As well as looking at examples in the Behind the Paper channel, you can find some tips here.

You will receive a manuscript publication date from our production editor once it is confirmed. We ask that you post your blog article on or after the day of manuscript publication, although you can write a draft and save this in the community prior to posting. Before publishing your post, remember to add a link to your paper, and select the 'behind the paper' channel and journal badge.

Do let me know if you have any questions.

Kind regards,
Emma

From: Letko, Michael Colin <michael.letko@wsu.edu>
Sent: 16 February 2020 15:38
To: Emma Thompson <emma.thompson.consultant@springernature.com>
Cc: Nature Communities <communities@nature.com>
Subject: Re: An invitation from the Nature Research Microbiology Community - NMICROBIOL-20020307A

Hi Emma,

I would be delighted to.

Let me know what you need.

Thank you,
-michael

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Allen Center
Washington State University

Pullman, WA 99164

On Feb 16, 2020, at 5:42 AM, Emma Thompson <emma.thompson.consultant@springernature.com> wrote:

Dear Dr Munster,

Following on from the Editor's decision to accept your manuscript (NMICROBIOL-20020307A), I am writing from the Nature Research Microbiology Community to invite you to contribute a blog-type post on this topic.

The Nature Research Microbiology Community is a forum for sharing wider discussion, ideas and experiences. The community accompanies our microbiology journals, including Nature Microbiology and Nature Communications, but we encourage contributions from all microbiologists. We think it would be great if you could post a blog-type article in the Behind the Paper channel to accompany your formal paper – it would be great if you could share your experiences with the community!

I hope you, or one of your co-authors would be happy to do this; it'll also provide a nice additional avenue for publicising your paper. We'd be looking for 400-500 words, written in an accessible style. Images really help elevate the attractiveness of the posts. You can see some examples on the community site, here.

Please let me know if you would be interested in contributing a Behind the Paper post and I can send on further details and guidance.

Kind regards,
Emma

Emma Thompson PhD
Freelance Community Manager

Springer Nature

4 Crinan Street, London N1 9XW, UK
Email: emma.thompson.consultant@springernature.com
Web: www.springernature.com

Visitor address: Porters Gate Reception, Wharfdale Road, London, UK

Springer Nature is one of the world's leading global research, educational and professional publishers, created in 2015 through the combination of Nature Publishing Group, Palgrave Macmillan, Macmillan Education and Springer Science+Business Media.

From: "Munster, Vincent (NIH/NIAID) [E]" <vincent.munster@nih.gov>
To: "Letko, Michael Colin" <michael.letko@wsu.edu>
Sent: 1/22/2020 4:01:28 PM
Subject: Re: bioRxiv -- Manuscript Screened

Online!

https://www.biorxiv.org/content/10.1101/2020.01.22.915660v1.full.pdf+html

Vincent Munster, PhD
Chief, Virus Ecology Section
Laboratory of Virology
Rocky Mountain Laboratories
NIAID/NIH

From: "Letko, Michael Colin" <michael.letko@wsu.edu>
Date: Wednesday, January 22, 2020 at 4:41 PM
To: "vincent.munster@nih.gov" <vincent.munster@nih.gov>
Subject: Re: bioRxiv -- Manuscript Screened

They responded back to my exposition request. No hard promises but they are definitely aware.

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Allen Center
Washington State University

Pullman, WA 99164

> On Jan 22, 2020, at 4:38 PM, Munster, Vincent (NIH/NIAID) [E] <vincent.munster@nih.gov> wrote:
>
> Lol, lets hope its minutes rather than hours!
>
> Vincent Munster, PhD

Chief, Virus Ecology Section
Laboratory of Virology
Rocky Mountain Laboratories
NIAID/NIH

From: "Letko, Michael Colin" <michael.letko@wsu.edu>
Date: Wednesday, January 22, 2020 at 4:37 PM
To: "vincent.munster@nih.gov" <vincent.munster@nih.gov>
Subject: Fwd: bioRxiv -- Manuscript Screened

Hey ho let's go!

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Allen Center
Washington State University

Pullman, WA 99164

Begin forwarded message:

> **From:** "biorxiv@cshlbp.org" <biorxiv@cshlbp.org>
> **Date:** January 22, 2020 at 4:35:55 PM MST
> **To:** "Letko, Michael Colin" <michael.letko@wsu.edu>
> **Cc:** "biorxiv@cshlbp.org" <biorxiv@cshlbp.org>
> **Subject: bioRxiv -- Manuscript Screened**
>
> <image001.jpg>
>
> ---
>
> **MS ID#: BIORXIV/2020/915660**
> **MS TITLE: Functional assessment of cell entry and receptor usage for lineage B β-coronaviruses, including 2019-nCoV**

Dear Dr. Letko,

We are pleased to inform you that the above manuscript has passed screening and will be online
shortly. Processing typically completes same or next day (occasionally longer if over a weekend or a holiday).

Once an article is published in a journal, bioRxiv will automatically update the preprint with a link to the published version. Depending on the journal, this process may take up to two weeks.

The bioRxiv team

From: Josep Corbella Domenech <jcorbella@lavanguardia.es>
To: "Letko, Michael Colin" <michael.letko@wsu.edu>
Sent: 2/26/2020 2:13:20 PM
Subject: RE: Newspaper article about Nature Microbiology paper on SARS-CoV-2

Of course, a link and a pdf of the printed version. I always send them. Josep

---

De: Letko, Michael Colin <michael.letko@wsu.edu>
Enviado: miércoles, 26 de febrero de 2020 22:01
Para: Josep Corbella Domenech <jcorbella@lavanguardia.es>
Asunto: Re: Newspaper article about Nature Microbiology paper on SARS-CoV-2

No problem.

Can you send me a link to your article when you publish it?

Thank you,
-michael

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Washington State University
Allen Center
1155 College Ave.
Pullman, WA
99164

From: Josep Corbella Domenech <jcorbella@lavanguardia.es>
Sent: Wednesday, February 26, 2020 12:48 PM
To: Letko, Michael Colin <michael.letko@wsu.edu>
Subject: Re: Newspaper article about Nature Microbiology paper on SARS-CoV-2

Thank you very much for your answers and time, Michael!

> El 26 feb 2020, a las 19:52, Letko, Michael Colin <michael.letko@wsu.edu> escribió:
>
> Dear Josep,
>
> These are fantastic questions! Some with clear answers and others not.
>
> Here are some brief answers:

Question 1: Why does SARS2 replicate in the upper respiratory tract while SARS1 does not?
The exact mechanism for this difference is unclear. This is a major question that comes up for many respiratory pathogens though. For example, MERS-CoV replicates in the upper respiratory tract of dromedary camels and the lower respiratory tract of humans.

To better answer your question, we need to dive into the molecular biology of coronavirus infection.

First, to infect a cell, the virus must do several things (using the multi-functional viral "spike" protein found on the outside of the virus particles):
1. Attach to the cell surface
2. Interact with the host receptor, which triggers the cell to engulf the virus particle
3. After the cell engulfs the virus particles, the cell uses protease enzymes to digest the virus. The virus is prepared for this, and uses the host proteases to fuse itself to the host cell, releasing the viral genome into the the host cell

There are lots of different types of proteases that all perform specific functions in the cell and for the tissue the cell is in. Thus, not every cell expresses the same proteases. Some, for example, are only found in the liver, or the stomach. Some proteases are expressed in different regions of the respiratory tract, different regions of the gastrointestinal tract, etc.

One hypothesis for why some coronaviruses replicate in the specific regions of the respiratory tract has to do with differences in host protease levels that vary throughout the tissue and the way coronaviruses produce the spike protein on the outside of the virus particle.

SARS2 has what is called a "furin cleavage site" in its spike protein that is not found in SARS1. Furin is a widely-expressed protease found in more cell types than the proteases thought to process SARS1. Thus, SARS2 may be able to infect different types of cells from SARS1, because it is compatible with different proteases.

There is a lot more nuance to proteases and infection, but this information is not fully clear for SARS2, so I think this is a good place to stop. Again, this is all hypothesis and has not been definitively proven. We do know, however, that some strains of Influenza also contain furin cleavage sites and that this can be associated with differences in infection (depending on the species and type of flu).

Question 2: Where is ACE2 expressed?
ACE2 is expressed in a variety of tissues, including the lungs and gastrointestinal tract. This may explain why the virus is respiratory but has also been detected in stool samples from infected patients. Additionally, most coronaviruses that have been identified in bats are usually detected in fecal samples.

Question 3: Does ACE2 expression change over time, potentially explaining why children seem less susceptible to COVID-19?

There is not much data on ACE2 expression levels over time in humans, so we cannot definitively say one way or another. However, epidemiological data suggest that older people are more susceptible to developing severe coronavirus disease. This has not been linked with ACE2 expression levels though, but more with declining immune system function.

There is a paper from 2006 looking at ACE2 expression in rats, and while the authors did not find much they actually show younger animals had higher levels of ACE2 expression (https://www.ncbi.nlm.nih.gov/pubmed/16303146). Keep in mind this study is in rats, and it is not the most thorough scientific study.

Please let me know if you have any other questions.

Also, if you have not seen already, check out these two other posts on our study describing the background story and some of the future directions for this work:

1. https://naturemicrobiologycommunity.nature.com/users/356379-michael-letko/posts/60701-making-sense-of-the-virome-with-functional-viromics
2. https://www.wired.com/story/can-a-database-of-animal-viruses-help-predict-the-next-pandemic/

Best,
-michael

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Washington State University
Allen Center
1155 College Ave.
Pullman, WA
99164

From: Josep Corbella Domenech <jcorbella@lavanguardia.es>
Sent: Wednesday, February 26, 2020 1:50 AM
To: Letko, Michael Colin <michael.letko@wsu.edu>; vincent.munster@nih.gov <vincent.munster@nih.gov>
Subject: Newspaper article about Nature Microbiology paper on SARS-CoV-2

Dear Professors Letko and Munster

the daily newspaper La Vanguardia, from Barcelona, Spain, will publish an article about SARS-CoV-2 based on the paper you have published this week in Nature Microbiology. We think it may be useful in helping our readers understand the novel coronavirus.

After having read the paper, I would like to ask you the following questions:

1. If SARS-CoV and SARS-CoV-2 home in on the same ACE2 receptor, why does SARS-CoV-2 affect upper respiratory tract tissues whereas SARS-CoV doesn't?
2. In which human tissues is the ACE2 receptor expressed?
3. Is it possible that the expression of ACE2 changes with age, which kight hypothetically explain why children are less vulnerable to Covid-19 than adults?

Thank you for your attention,

Josep Corbella
Science and Medicine correspondent
La Vanguardia

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Of course, a link and a pdf of the printed version. I always send them. Josep

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Asunto: Re: Newspaper article about Nature Microbiology paper on SARS-CoV-2

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Michael Letko, Ph.D
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Best,
-michael

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Washington State University
Allen Center
1155 College Ave.
Pullman, WA
99164

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Sent: Wednesday, February 26, 2020 1:50 AM
To: Letko, Michael Colin <michael.letko@wsu.edu>; vincent.munster@nih.gov <vincent.munster@nih.gov>
Subject: Newspaper article about Nature Microbiology paper on SARS-CoV-2

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Thank you for your attention,

Josep Corbella
Science and Medicine correspondent
La Vanguardia

From: Theranostics Editor <editor@thno.org>
To: michael.letko@wsu.edu
CC: editor@thno.org
Sent: 2/29/2020 9:47:24 AM
Subject: Re: Review reminder 45381k

Dear Dr. Letko,

Some time ago, we sent you an email requesting your assistance in evaluating or reviewing the following manuscript for possible publication in Theranostics. Could you please let us know your intention, by accepting or declining the review invitation in:
https://urldefense.proofpoint.com/v2/url?u=http-3A__www.thno.org_ms_review_687_45381kl1&d=DwICaQ&c=C3yme8gMkxg_ihJNXS06ZyWk4EJm8LdrrvxQb-Je7sw&r=oxlILmqLq8uTD4KbWXhxjwF8X8Jb2W1Jqmr-6Ejlmso&m=blg4vvJsFyEWk82t8aBCKoVUQvMGgBLHLGXEImGqKZI&s=Q-p1e-bmsVIqYNWWCh4uiOD4N_-vqlC6Wcx4kHvhkJM&e=

Full version of the manuscript can be found in the same hyperlink above.

We typically require turnaround within 10-14 days since accepting the review invitation. Thanks for your consideration.

Sincerely,

Xiaoyuan (Shawn) Chen, Ph.D.
Editor-in-Chief, Theranostics (2018 IF 8.063)
https://urldefense.proofpoint.com/v2/url?u=http-3A__www.thno.org&d=DwICaQ&c=C3yme8gMkxg_ihJNXS06ZyWk4EJm8LdrrvxQb-Je7sw&r=oxlILmqLq8uTD4KbWXhxjwF8X8Jb2W1Jqmr-6Ejlmso&m=blg4vvJsFyEWk82t8aBCKoVUQvMGgBLHLGXEImGqKZI&s=xFl26Sm73T0IohZ2w_vgOlUTnNPe38ZcDCvFtYiLW8Y&e=
Wechat ID: ShawnChenNIH

Manuscript information

Manuscript category: Original research
Title: Co-expression of ACE2 and TMPRSS2 in various organ systems and its guiding significance for the coronavirus disease 2019 (COVID-19)
Author(s): Dai Ziyu, Zhou Ran, Zhang Hao, Wang Zeyu, Fan Fan, Liu Fangkun, Feng Songshan, Zhangliyang, Cao Hui, Cheng Quan, Liu Zhixiong

The outbreak of the new coronavirus (SARS-CoV-2), which started in December

2019, poses a major threat to public health. As a communicable virus, SARS-CoV-2 was originally thought to only cause respiratory symptoms and respiratory failure. However, increasing clinical observations and laboratory test results have indicated that SARS-CoV-2 can cause multiple organ damage. Recent studies have confirmed that SARS-CoV-2 is a species of severe acute respiratory syndrome-associated coronavirus (SARS-CoV), suggesting that the SARS-CoV-2 and SARS-CoV share many similar virological characteristics, such as entrance into the host cell by binding to ACE2. However, SARS-CoV-2 has a stronger affinity for ACE2 than SARS-CoV, which might be why SARS-CoV-2 has been reported to cause more severe damage to various organs. Under conditions of ACE2 and TMPRSS2 (as a co-molecule of ACE2) co-expression, SARS-CoV will be more targeted, indicating that more attention should be paid to organs that co-express

both ACE2 and TMPRSS2 when investigating the pathologic pattern of SARS-CoV-2. In this study, we revealed the expression and distribution of ACE2 and TMPRSS2 in different cells of various systems via single cell sequencing technology. From this data we attempted to explain the molecular mechanism of SARS-CoV-2 with regard to the impact on various systems and provide a biological background for the epidemiological study of SARS-CoV-2 infection. The results from our study suggest the following: 1) when screening suspected patients, the respiratory system, as well as other system symptoms, need to be closely monitored because patients could present with various system symptoms; 2) when caring for diagnosed patients, all discomforts of the patient should be documented, as SARS-CoV-2 could cause a variety of organ damage; and 3) when discharging patients with relieved respiratory symptoms, patients should be observed for other discomforts, so as not to neglect the recovery of other syst
ematic disorders.

From: Theranostics Editor <editor@thno.org>
To: michael.letko@wsu.edu
CC: editor@thno.org
Sent: 2/27/2020 5:22:08 AM
Subject: Re: Review request 45381k

Dear Dr. Letko,

Re: Journal: Theranostics
Manuscript ID: 45381k
Title: Co-expression of ACE2 and TMPRSS2 in various organ systems and its guiding significance for the coronavirus disease 2019 (COVID-19)
Author(s): Dai Ziyu, Zhou Ran, Zhang Hao, Wang Zeyu, Fan Fan, Liu Fangkun, Feng Songshan, Zhangliyang, Cao Hui, Cheng Quan, Liu Zhixiong

This manuscript has been submitted for publication in Theranostics (https://urldefense.proofpoint.com/v2/url?u=http-3A__www.thno.org_&d=DwICaQ&c=C3yme8gMkxg_ihJNXS06ZyWk4EJm8LdrrvxQb-Je7sw&r=oxlILmqLq8uTD4KbWXhxjwF8X8Jb2W1Jqmr-6Ejlmso&m=s0hUOCrRSBiFpScjetELvLQkw6KI5KDauwcWhOT1XVA&s=uFrfsfX1aJctnXCi2qPosAJ6snNkBN2JQi7ZXXMP9AQ&e=). The abstract is available at the end of this message. We would greatly appreciate it if you would agree to review this manuscript for Theranostics.

Theranostics publishes innovative research articles reflecting the fields of in vitro diagnostics and prognostics, in vivo molecular imaging, molecular therapeutics, image-guided therapy, biosensors, system biology and translational medicine, personalized medicine and a broad spectrum of biomedical research that can be applied to future theranostic applications. The 2018 impact factor of Theranostics is 8.063.

Because we are striving for rapid publication, our goal is to have manuscripts reviewed within 10-14 days after they have been received by referees. If you agree to review this manuscript, I would appreciate receiving your review within 14 days. If you are unable to review this manuscript, you will be provided with the opportunity to suggest alternative reviewers. This information is optional but if you can provide alternative reviewers with their email address, that would be most helpful.

The hyperlink below can be used to accept or decline this invitation automatically:
https://urldefense.proofpoint.com/v2/url?u=http-3A__www.thno.org_ms_review_784_45381kl1a&d=DwICaQ&c=C3yme8gMkxg_ihJNXS06ZyWk4EJm8LdrrvxQb-Je7sw&r=oxlILmqLq8uTD4KbWXhxjwF8X8Jb2W1Jqmr-

6Ejlmso&m=s0hUOCrRSBiFpScjetELvLQkw6KI5KDauwcWhOT1XVA&s=CAoGHWB-QHG2nFjytT-1O8FGf0NjeC22XDNcbG86yEI&e=

Please note that Theranostics can only accept articles with very high scientific merit, which will lead to a substantial number of rejections. Your critical review will help us make an informative decision quickly.

I really hope you are able to review this manuscript and if you have any questions please do not hesitate to contact me.

We look forward to hearing from you soon.

Sincerely,

Xiaoyuan (Shawn) Chen, Ph.D.
Editor-in-Chief, Theranostics (2018 IF 8.063)
https://urldefense.proofpoint.com/v2/url?u=http-3A__www.thno.org&d=DwICaQ&c=C3yme8gMkxg_ihJNXS06ZyWk4EJm8LdrrvxQb-Je7sw&r=oxlILmqLq8uTD4KbWXhxjwF8X8Jb2W1Jqmr-6Ejlmso&m=s0hUOCrRSBiFpScjetELvLQkw6KI5KDauwcWhOT1XVA&s=DDbl0cHFMmFE11pSuzntHe0SdhAwWOulHX2QNGIFIrA&e=
Wechat ID: ShawnChenNIH

****

Manuscript Abstract for 45381k:

The outbreak of the new coronavirus (SARS-CoV-2), which started in December 2019, poses a major threat to public health. As a communicable virus, SARS-CoV-2 was originally thought to only cause respiratory symptoms and respiratory failure. However, increasing clinical observations and laboratory test results have indicated that SARS-CoV-2 can cause multiple organ damage. Recent studies have confirmed that SARS-CoV-2 is a species of severe acute respiratory syndrome-associated coronavirus (SARS-CoV), suggesting that the SARS-CoV-2 and SARS-CoV share many similar virological characteristics, such as entrance into the host cell by binding to ACE2. However, SARS-CoV-2 has a stronger affinity for ACE2 than SARS-CoV, which might be why SARS-CoV-2 has been reported to cause more severe damage to various organs. Under conditions of ACE2 and TMPRSS2 (as a co-molecule of ACE2) co-expression, SARS-CoV will be more targeted, indicating that more attention should be paid to organs that co-express

both ACE2 and TMPRSS2 when investigating the pathologic pattern of SARS-CoV-2. In this study, we revealed the expression and distribution of ACE2 and TMPRSS2 in different cells of various systems via single cell sequencing technology. From this data we attempted to explain the molecular mechanism of SARS-CoV-2 with regard to the impact on various systems and provide a biological background for the epidemiological study of SARS-CoV-2 infection. The results from our study suggest the following: 1) when screening suspected

patients, the respiratory system, as well as other system symptoms, need to be closely monitored because patients could present with various system symptoms; 2) when caring for diagnosed patients, all discomforts of the patient should be documented, as SARS-CoV-2 could cause a variety of organ damage; and 3) when discharging patients with relieved respiratory symptoms, patients should be observed for other discomforts, so as not to neglect the recovery of other syst
ematic disorders.

From: "Johnson, Carolyn" <Carolyn.Johnson@washpost.com>
To: "Munster, Vincent (NIH/NIAID) [E]" <vincent.munster@nih.gov>, "michael.letko@wsu.edu" <michael.letko@wsu.edu>
CC: "Pekoc, Ken (NIH/NIAID) [E]" <kpekoc@niaid.nih.gov>
Sent: 1/24/2020 1:23:47 PM
Subject: RE: Washington Post

Hi Vincent and Michael,
Many thanks for your time.
https://www.washingtonpost.com/science/2020/01/24/scientists-are-unraveling-chinese-coronavirus-with-unprecedented-speed-openness/
Please let me know if you have other developments in this fast-moving area.
Carolyn

From: Munster, Vincent (NIH/NIAID) [E] <vincent.munster@nih.gov>
Sent: Friday, January 24, 2020 12:00 PM
To: Johnson, Carolyn <Carolyn.Johnson@washpost.com>; michael.letko@wsu.edu
Cc: Pekoc, Ken (NIH/NIAID) [E] <kpekoc@niaid.nih.gov>
Subject: Re: Washington Post

Allright, lets do now

Calling in

Vincent Munster, PhD
Chief, Virus Ecology Section
Laboratory of Virology
Rocky Mountain Laboratories
NIAID/NIH

From: "Johnson, Carolyn" <Carolyn.Johnson@washpost.com>
Date: Friday, January 24, 2020 at 9:58 AM
To: "vincent.munster@nih.gov" <vincent.munster@nih.gov>, "michael.letko@wsu.edu" <michael.letko@wsu.edu>
Cc: Ken Pekoc <kpekoc@niaid.nih.gov>
Subject: RE: Washington Post

Or let me know when to call in – free for the next hour

From: Munster, Vincent (NIH/NIAID) [E] <vincent.munster@nih.gov>
Sent: Friday, January 24, 2020 11:42 AM
To: Johnson, Carolyn <Carolyn.Johnson@washpost.com>; michael.letko@wsu.edu
Cc: Pekoc, Ken (NIH/NIAID) [E] <kpekoc@niaid.nih.gov>
Subject: Re: Washington Post

CAUTION: EXTERNAL SENDER

Hi Carolyn,

Let us know what time would work for you

Leader:	Phone #: 866-836-3296	Passcode: [redacted] 41
Participants in US & Canada:	Phone #: 866-836-3296	Passcode: [redacted] 41
Participants outside US & Canada:	Phone #: 1-210-406-6630	Passcode: [redacted] 41

Cheers,

Vincent Munster, PhD
Chief, Virus Ecology Section
Laboratory of Virology
Rocky Mountain Laboratories
NIAID/NIH

From: "Johnson, Carolyn" <Carolyn.Johnson@washpost.com>
Date: Friday, January 24, 2020 at 9:33 AM
To: "vincent.munster@nih.gov" <vincent.munster@nih.gov>, "michael.letko@wsu.edu" <michael.letko@wsu.edu>
Subject: Washington Post

Hello Vincent and Michael – Would one of you be available to speak ASAP about your preprint on the receptors that coronaviruses use to infect cells?
Thanks,
Carolyn

Carolyn Johnson
Washington Post
202-334-6248 (desk)
857-939-0247 (cell)

From: "Goodman, Alan G" <alan.goodman@wsu.edu>
To: "Letko, Michael Colin" <michael.letko@wsu.edu>
CC: "Kawula, Thomas Hardin" <tom.kawula@wsu.edu>
Sent: 2/12/2020 8:50:10 AM
Subject: Re: Wired article

Wow, very cool work – congrats Michael! And welcome!

Alan

Alan G. Goodman
Assistant Professor
School of Molecular Biosciences, BLS 135
Washington State University
509.335.0186
alan.goodman@wsu.edu

From: "Kawula, Thomas Hardin" <tom.kawula@wsu.edu>
Date: Wednesday, February 12, 2020 at 7:37 AM
To: CVM Allen School ALL <O365.CVM.Allen.School.ALL@wsu.edu>
Cc: "Lockard, Laura Sue" <laura.lockard@wsu.edu>
Subject: Fwd: Wired article

Nice Wired article describing new Allen School Faculty member Michael Letko's discovery of the receptor for the Wuhan nCorona virus.

Sent from my iPhone

Begin forwarded message:

> **From:** "Letko, Michael Colin" <michael.letko@wsu.edu>
> **Date:** February 12, 2020 at 7:19:18 AM PST
> **To:** "Kawula, Thomas Hardin" <tom.kawula@wsu.edu>
> **Subject: Wired article**
>
> https://www.wired.com/story/can-a-database-of-animal-viruses-help-predict-the-next-pandemic/
>
> ---

Michael Letko, Ph.D
Assistant Professor
Laboratory of Functional Viromics
Paul G. Allen School for Global Animal Health
Allen Center
Washington State University

Pullman, WA 99164

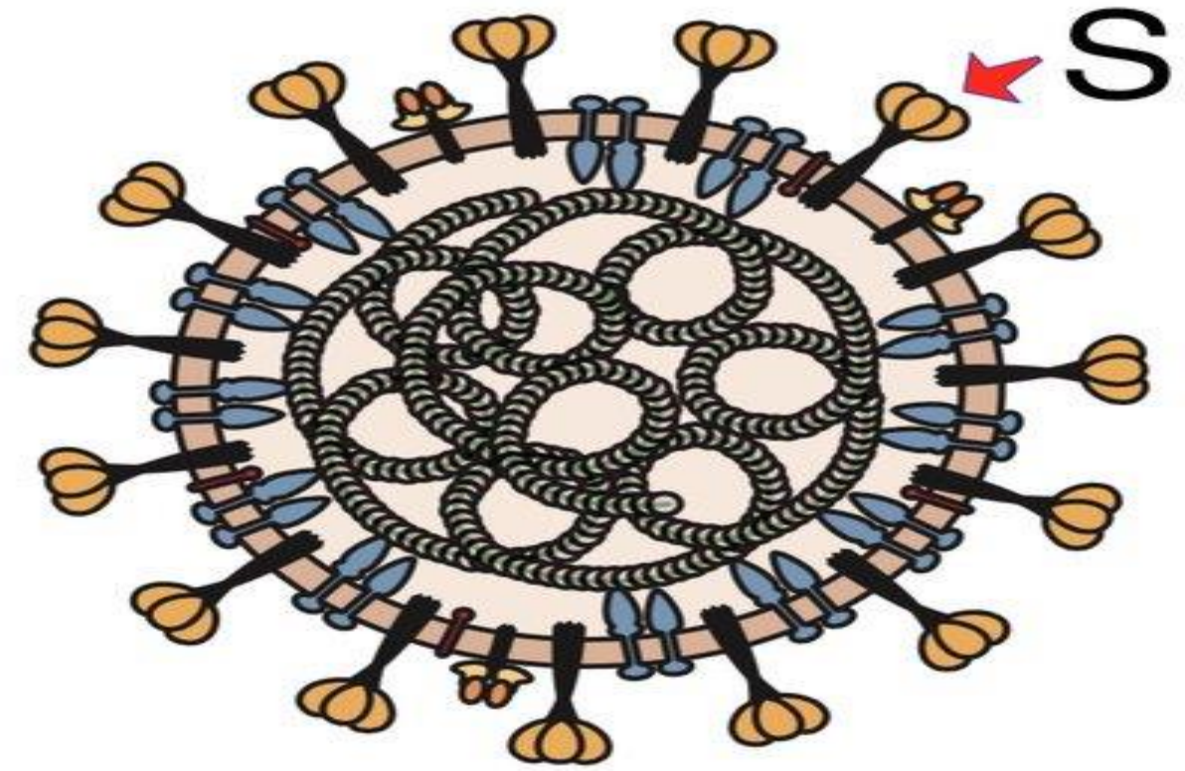
From: Twitter <info@twitter.com>
To: FunctionalViromics <michael.letko@wsu.edu>
Sent: 2/21/2020 8:23:59 AM
Subject: Vincent Racaniello Tweeted: Pangolins and the origin of SARS-CoV-2 S...

Your Highlights

Priya and 1 others liked

Vincent Racaniello
@profvrr

Pangolins and the origin of SARS-CoV-2 bit.ly/32ev9FH SARS-CoV-2 was not from pangolins, and not from a laboratory - analysis at virology blog



3 21 40

The linked image cannot be displayed. The file may have been moved, renamed, or deleted. Verify that the link points to the co

alex29
@aschaefe29

RT @MackayIM: Two big new findings.
Isolation (growth in cell culture) of SARS-CoV-2 from stool (weekly.chinacdc.cn/en/article/id/…) and from 2 asympt…

Evidence of SARS-CoV-2 Infection in Returning Travelers from Wuhan, China | NEJM

Correspondence from The New England Journal of Medicine — Evidence of SARS-CoV-2 Infection in... more

nejm.org

Prof. Dr. Benhur Lee, MD
@VirusWhisperer

#COVID19 1/n The number of reports from multiple different countries in p ast 36 hrs showing what is most likely community H2H spread of #SARSC oV2 confirm fears that the virus is on its way to causing a pandemic | 1/n t witter.com/lookner/status…

2 6 12

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Stuart Neil
@stuartjdneil

RT @dimbleby jd: I loathe pervasive term 'unskilled'. Are care-workers 'un skilled'? It is a callously bureaucratic way to describe such de…

The linked image cannot be displayed. The file may have been moved, renamed, or deleted. Verify that the link

Lauren Aguado
@lauren_aguado

"I've worked hard for this much money and I am giving it away." Says the man who could do the most to literally end poverty without being elected to office but is on some vanity project instead.

1 2

Florian Krammer
@florian_krammer

RT @Malakalibrahim1: @florian krammer Unfortunately, the first coronavi rus case was diagnosed today in my country Lebanon. The case is a 45…

See more on Twitter